

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A catalyst for gas-phase oxidations, ~~comprising an inert support and a catalytically active composition comprising transition metal oxides applied thereto, or a precatalyst for this, obtainable by treating an inert prepared by a process comprising contacting a support with an aqueous suspension or solution of the comprising a transition metal oxides composition or their precursor compounds, wherein the suspension or solution contains a binder dispersion and the binder is consisting essentially of a copolymer of an α-olefin and a vinyl-C₂-C₄-carboxylate whose vinyl C₂-C₄-carboxylate content is at least 62 mol%.~~
2. (Original) A catalyst as claimed in claim 1, wherein the vinyl C₂-C₄-carboxylate copolymer is a vinyl acetate copolymer.
3. (Original) A catalyst as claimed in claim 2, wherein the vinyl acetate copolymer is an ethylene-vinyl acetate copolymer.
4. (Original) A catalyst as claimed in claim 3, wherein the ethylene-vinyl acetate copolymer comprises from 63 to 70 mol% of vinyl acetate and from 37 to 30 mol% of ethylene.
5. (Currently Amended) A catalyst as claimed in ~~any of the preceding claims~~ claim 1, wherein the ~~catalytically active transition metal oxides~~ composition comprises from 1 to 40% by weight of vanadium oxide, calculated as V₂O₅, and from 60 to 99% by weight of titanium dioxide, calculated as TiO₂, ~~based on the total amount of the catalytically active composition~~.
6. (Currently Amended) A catalyst as claimed in claim 5, wherein the ~~catalytically active transition metal oxides~~ composition further comprises up to 1% by weight of a cesium compound, calculated as Cs, up to 1% by weight of a phosphorus compound, calculated as P, and ~~or~~ up to 10% by weight of antimony oxide, calculated as Sb₂O₃, ~~based on the total amount of the catalytically active composition~~.

7. (Currently Amended) A process for preparing aldehydes, carboxylic acids and/or carboxylic anhydrides, ~~which comprises bringing comprising providing~~ a gaseous stream comprising an aromatic hydrocarbon and a gas comprising molecular oxygen, ~~into contact and contacting the gaseous stream~~ with a catalyst as claimed in ~~any of claims 1 to 6~~ ~~claim 1 at an~~ elevated temperature.

8. (Currently Amended) A process as claimed in claim 7, wherein the catalyst is produced in situ from a precatalyst at an elevated temperature sufficient to decompose the copolymer.

9. (Currently Amended) A process as claimed in claim 7 or 8, wherein ~~the aromatic hydrocarbon is selected from~~ o-xylene, ~~or~~ naphthalene or a mixture of o-xylene and naphthalene ~~is used as aromatic hydrocarbon and is oxidized to phthalic anhydride~~.

10. (New) A precatalyst comprising transition metal oxides attached to a support with a binder, wherein the binder consists essentially of a copolymer of an α -olefin and a vinyl-C₂-C₄-carboxylate, wherein the vinyl C₂-C₄-carboxylate content is at least 62 mol%.

11. (New) The precatalyst according to claim 10, wherein the copolymer is an ethylene-vinyl acetate copolymer comprising from 63 to 70 mol% of vinyl acetate and from 37 to 30 mol% of ethylene.

12. (New) The precatalyst according to claim 10, wherein the transition metal oxides comprises from 1 to 40% by weight of vanadium oxide, calculated as V₂O₅, and from 60 to 99% by weight of titanium dioxide, calculated as TiO₂.

13. (New) The precatalyst according to claim 12, wherein the transition metal oxides are disposed in at least a two zone catalyst system, wherein the upstream zone of the catalyst system contains an upstream pre-catalyst that contains less vanadium oxide relative to the amount of titanium oxide than a downstream pre-catalyst.

14. (New) The precatalyst according to claim 13, wherein the upstream precatalyst further comprises up to 10% by weight of antimony oxide, calculated as Sb_2O_3 , and the down stream catalyst comprises up to 1% by weight of a phosphorus compound, calculated as P.

15. (New) A binder composition in combination with transition metal oxides, the binder composition consisting essentially of a copolymer of an α -olefin and a vinyl-C₂-C₄-carboxylate, wherein the vinyl C₂-C₄-carboxylate content is at least 62 mol%.

16. (New) The binder composition according to claim 15, wherein the copolymer is an ethylene-vinyl acetate copolymer comprises from 63 to 70 mol% of vinyl acetate and from 37 to 30 mol% of ethylene.

17. (New) The binder composition according to claim 15, wherein the transition metal oxides comprises from 1 to 40% by weight of vanadium oxide, calculated as V_2O_5 , and from 60 to 99% by weight of titanium dioxide, calculated as TiO_2 .